

Science and Development Programs at NSLS-II

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NSLS-II is the newest 3rd generation synchrotron facility in the world and started its operations in the last quarter of 2014. When fully built out, NSLS-II will accommodate more than 60 beamlines and provide high photon brightness and flux as well as excellent beam stability over a broad range of photon energies, and will enable a wide-range of cutting-edge scientific programs from materials and chemical sciences to environmental and life sciences.

In this presentation I will provide an overview of the NSLS-II scientific programs currently being developed and commissioned, and describe the suite of research and development projects in x-ray optics and instrumentation that are ongoing at NSLS-II. These projects include nanofocusing optics, nanopositioning, optical metrology, coherent imaging methods, and x-ray optical simulations. I will conclude with an outlook of the future directions that NSLS-II plans to pursue and the ongoing effort to define the next suite of beamlines to be constructed at NSLS-II.